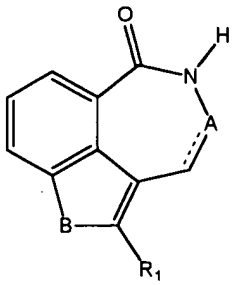
We claim:

1. A compound of the formula:



I-3c

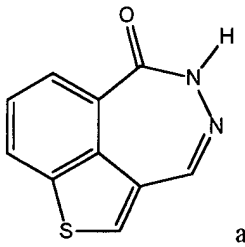
where

B is S, SO or SO_2;

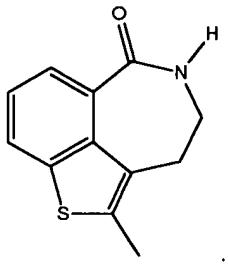
R_1 is an optionally substituted alkyl, alkenyl, alkynyl, alkoxy, carboxy, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, halogen, -COR_8, where R_8 is H, -OH, an optionally substituted alkyl, alkoxy, or –OR_6 where R_6 is hydrogen or an optionally substituted alkyl; and

A is N, C, CH or CH_2.

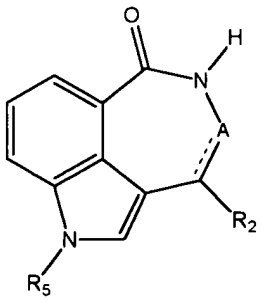
2. A compound of claim 1, selected from the group consisting of:



and



3. A compound of the formula:

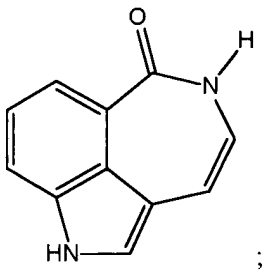


I-3d

where

R_2 and R_5 are, independently, optionally substituted alkyl, alkenyl, alkynyl, alkoxy, carboxy, cycloalkyl, heterocycloalkyl, aryl, heteroaryl; halogen, $-COR_8$, where R_8 is H, -OH, an optionally substituted alkyl, alkoxy, or $-OR_6$ where R_6 is independently hydrogen or an optionally substituted alkyl; A is CH or CH_2.

4. A compound of claim 3, selected from the group consisting of:



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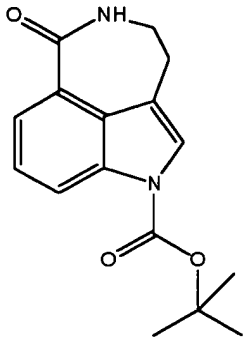

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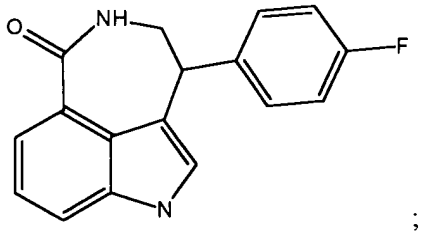

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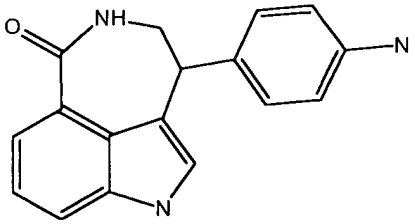

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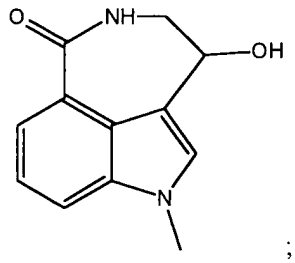

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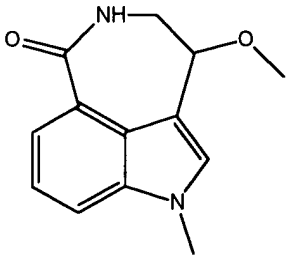
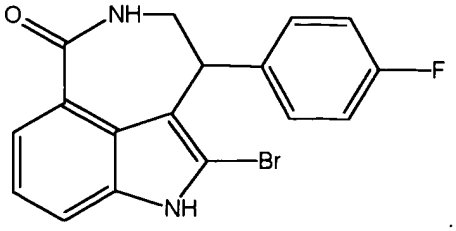


; and


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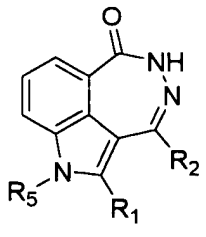
5. A compound of the formula:

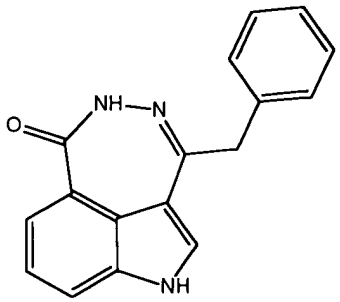


I-1

where

R_1, R_2 and R_5 are, independently, optionally substituted alkyl, alkenyl, alkynyl, alkoxy, carboxy, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, halogen, amine, -COR_8, where R_8 is an optionally substituted alkyl, aryl or heteroaryl.

6. The compound of claim 5 selected from the group consisting of: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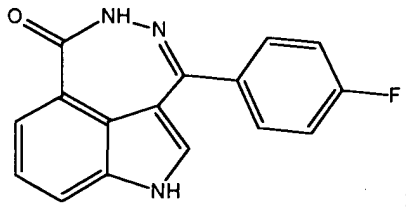
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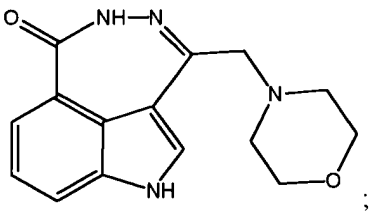
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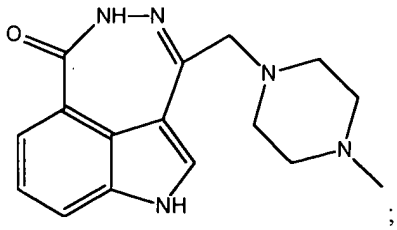
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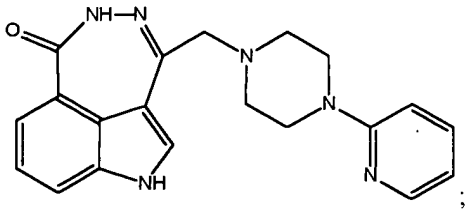
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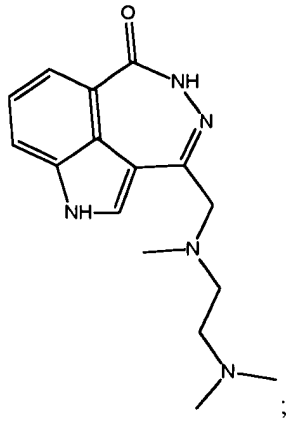
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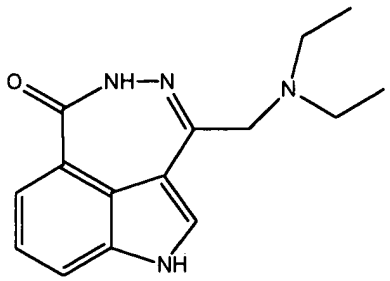
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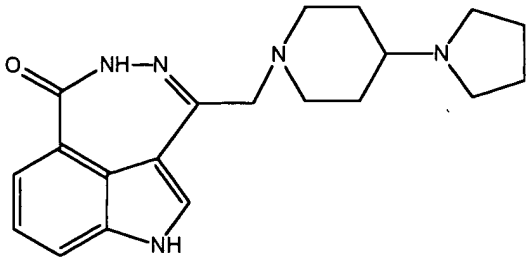
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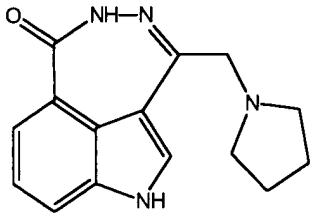
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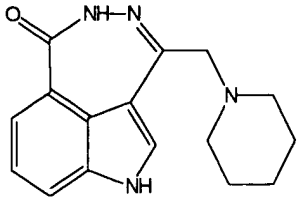
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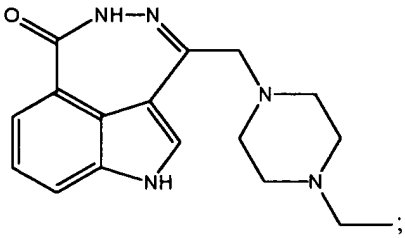
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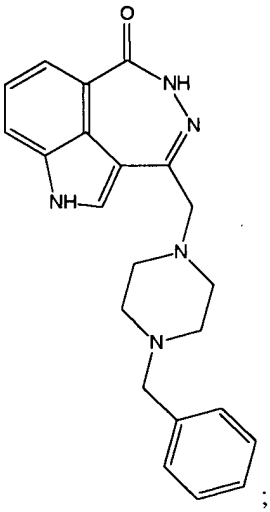
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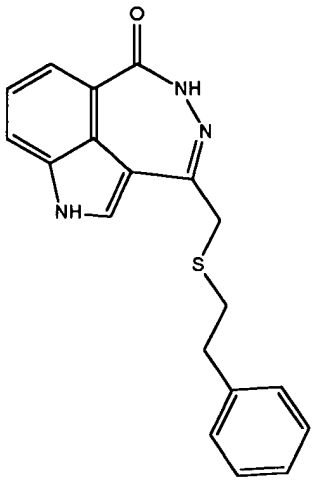
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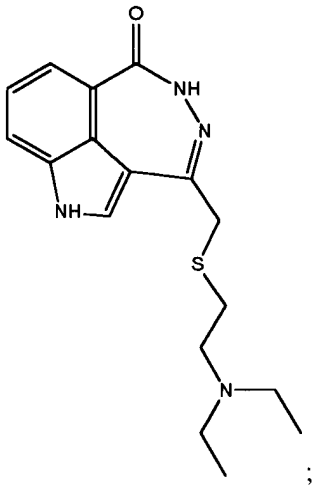
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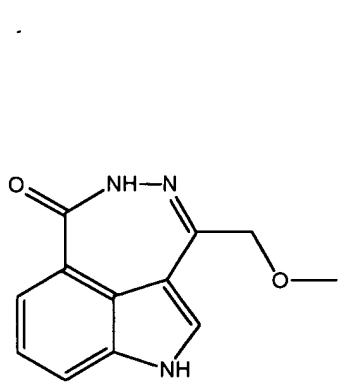
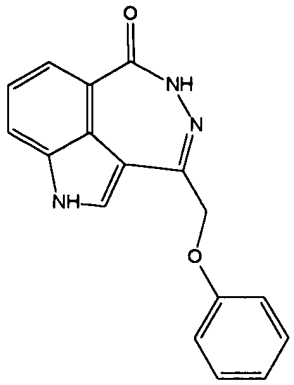
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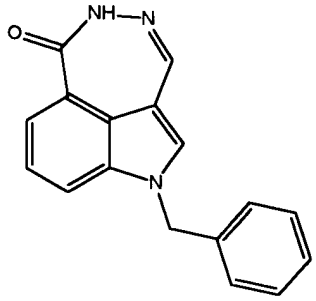
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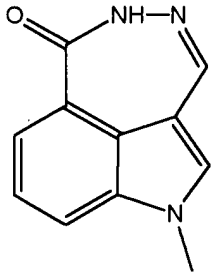
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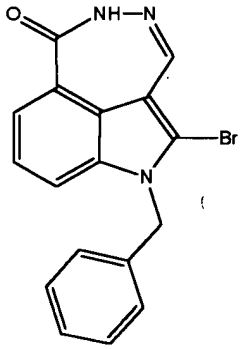
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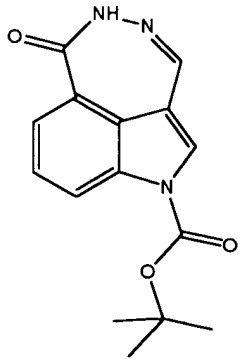
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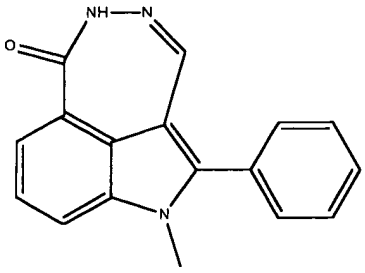
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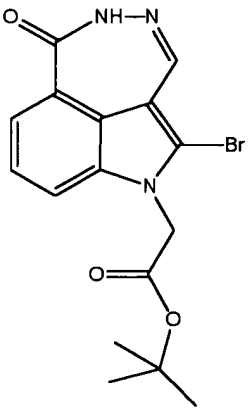
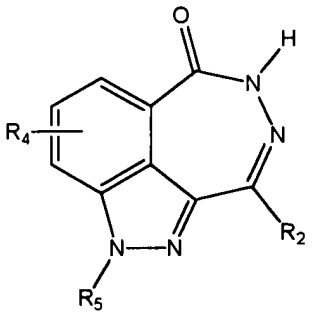

; and

7. A compound of the formula:

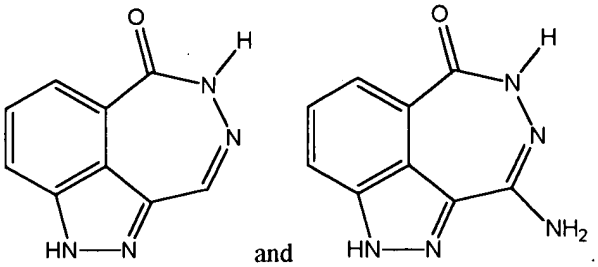


I-11

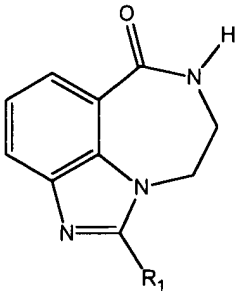
where

R_2 is halogen, amine, -COR_8, where R_8 is an optionally substituted alkyl, aryl or heteroaryl, or an optionally substituted alkyl, alkenyl, alkynyl, alkoxy, carboxy, cycloalkyl, heterocycloalkyl, aryl or heteroaryl; R_4 are independently hydrogen, halogen, or lower alkyl; and R_5 is hydrogen or lower alkyl.

8. The compound of claim 7 selected from the group consisting of:



9. A compound of the formula:

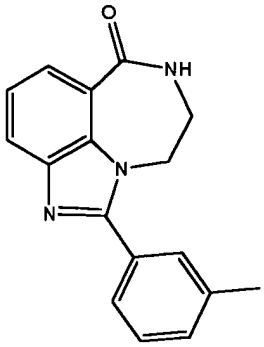


I-12

where

R_1 is a halogen, amine or an optionally substituted alkyl, alkenyl, alkynyl, alkoxy, carboxy, cycloalkyl, heterocycloalkyl, aryl or heteroaryl.

10. A compound of claim 9 selected from the group consisting of: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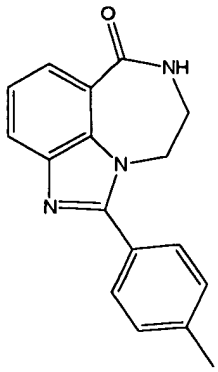
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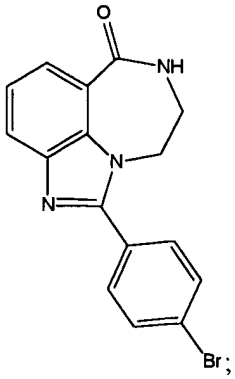
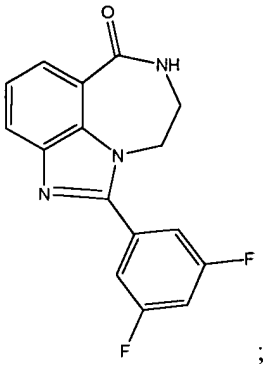

Br;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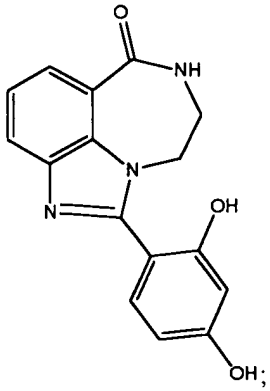
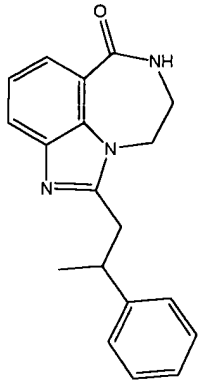

OH
OH;

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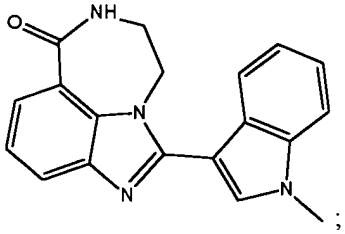
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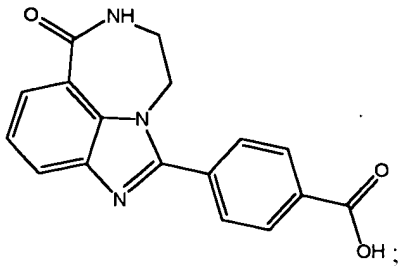
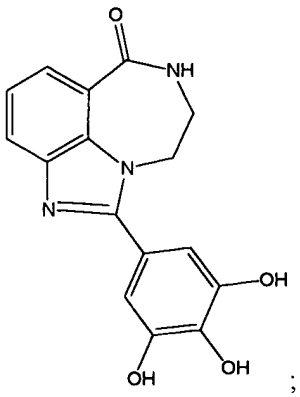

O
OH ;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OH
OH
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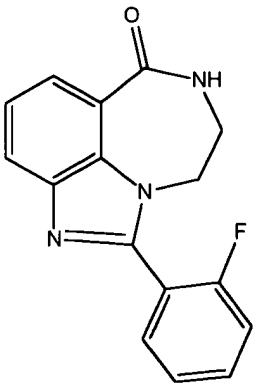
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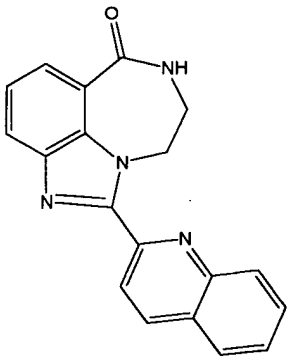
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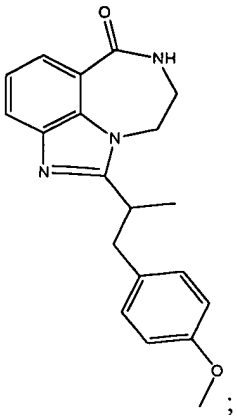
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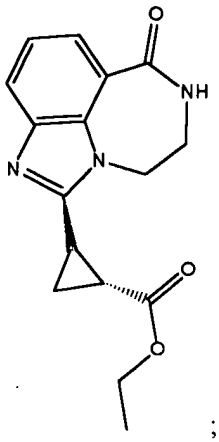
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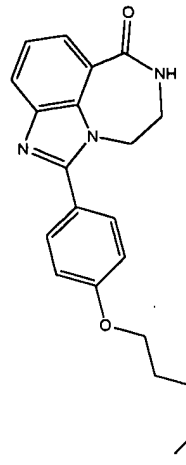
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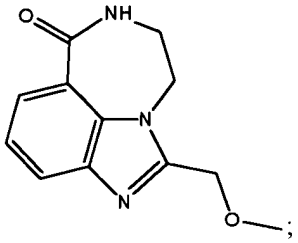
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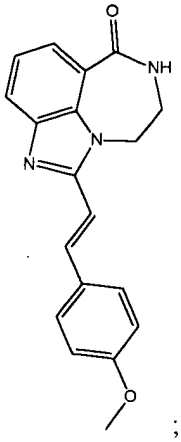
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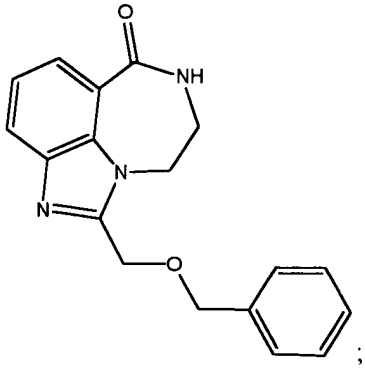
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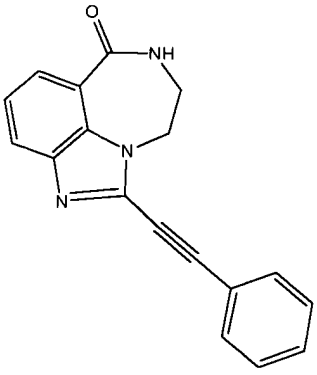
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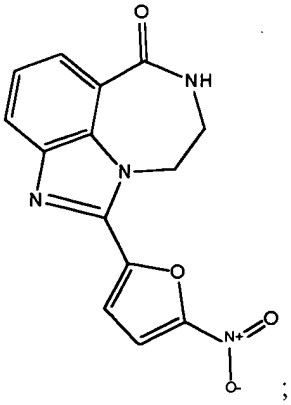
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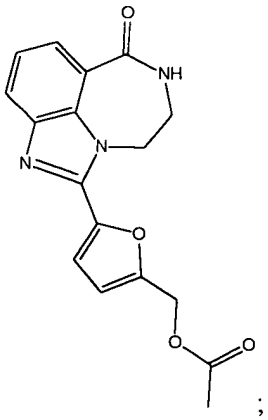
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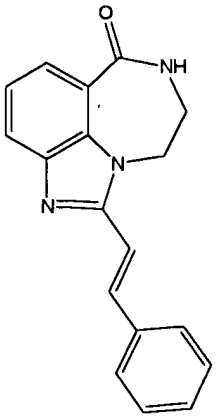
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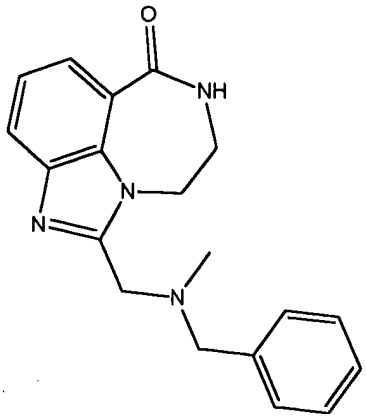
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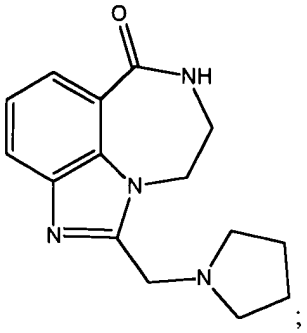
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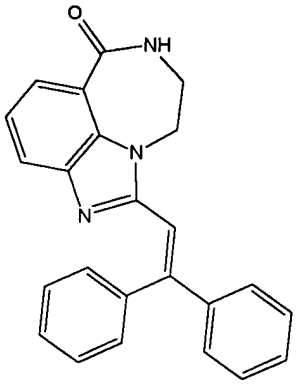
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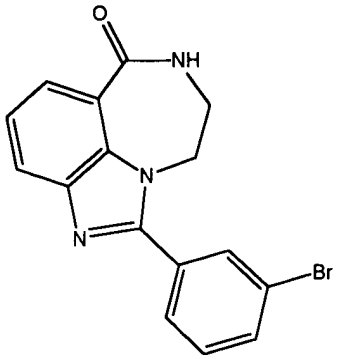
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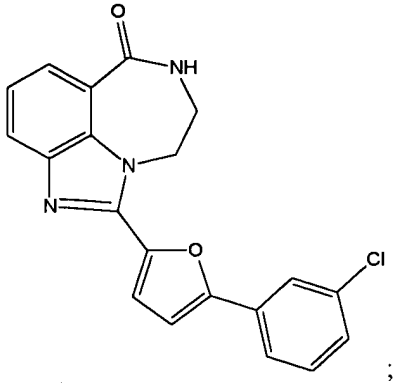
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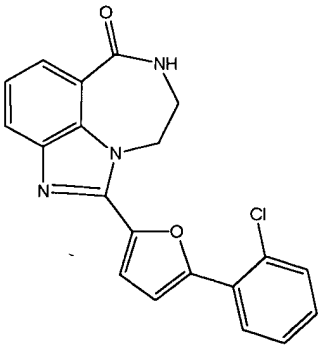
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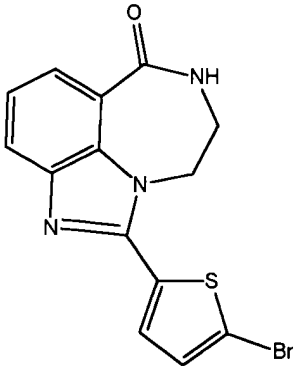
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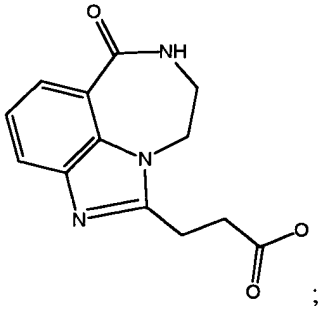
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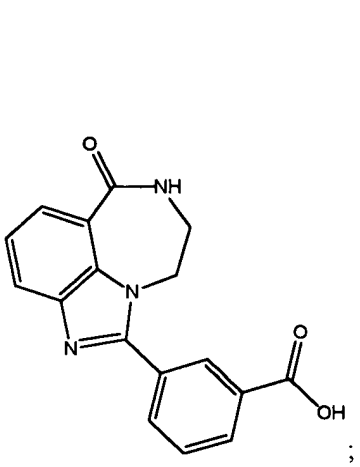
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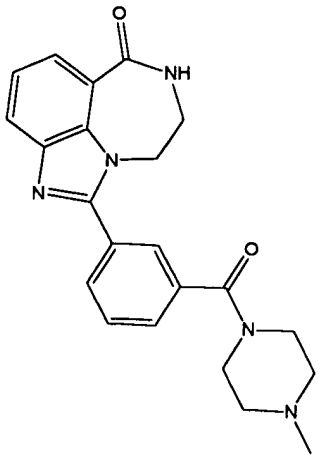
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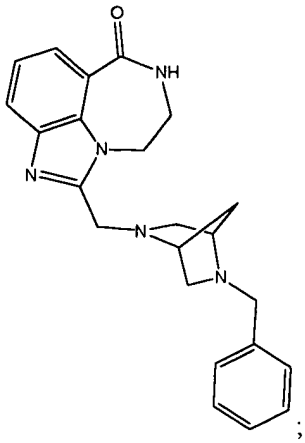
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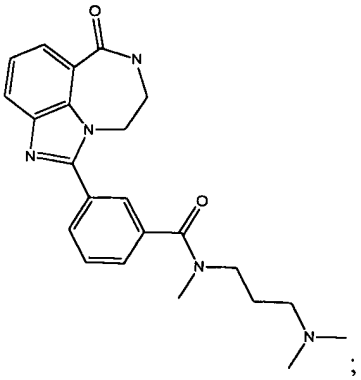
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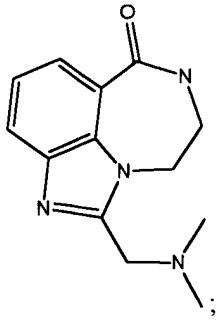
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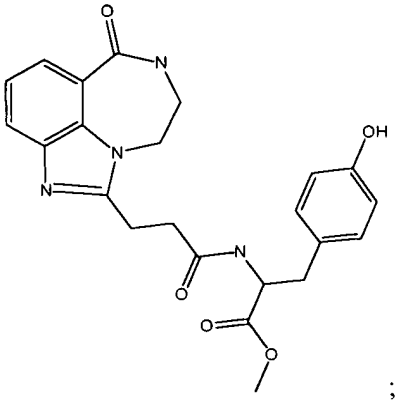
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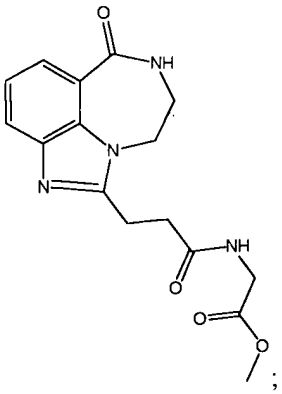
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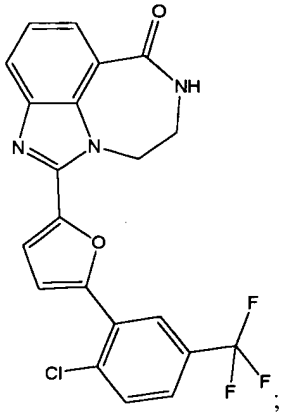
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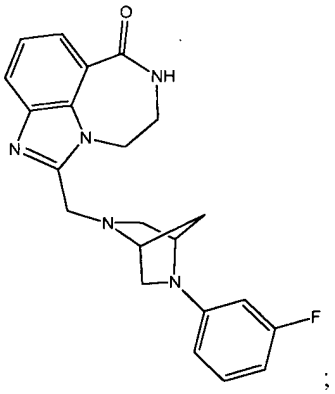
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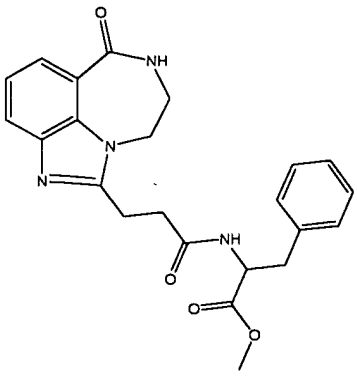
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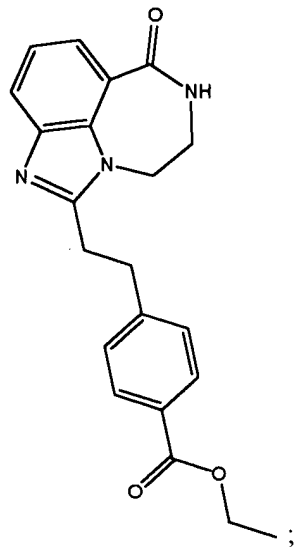
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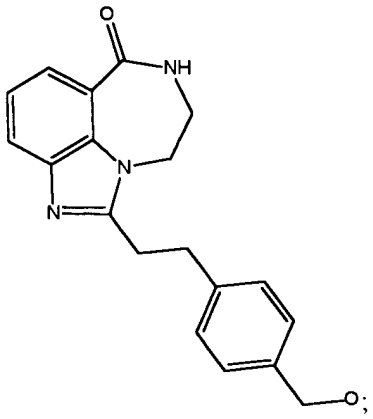
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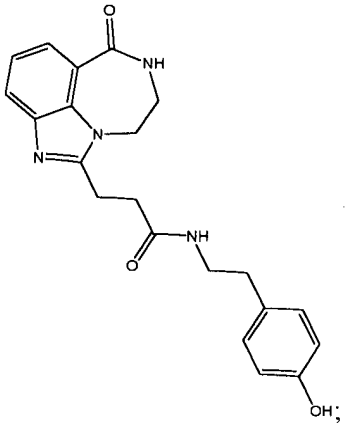
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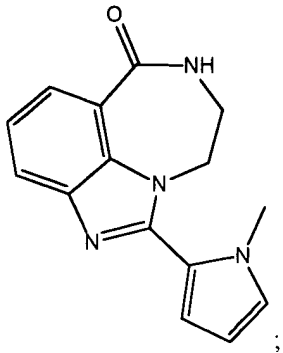
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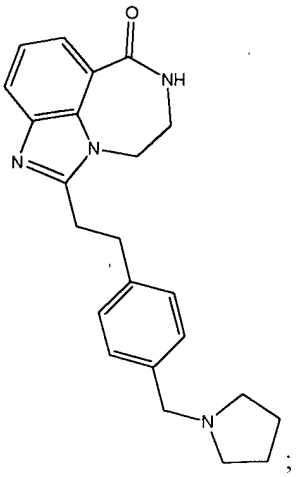
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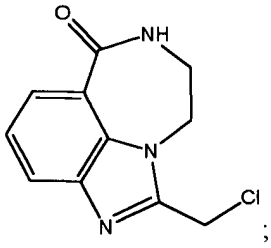
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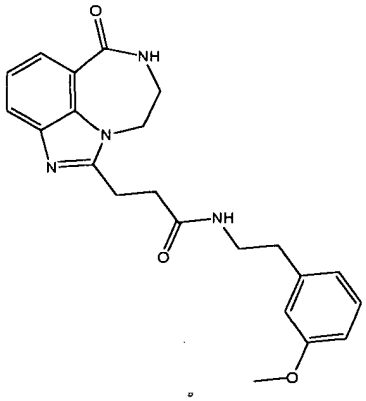
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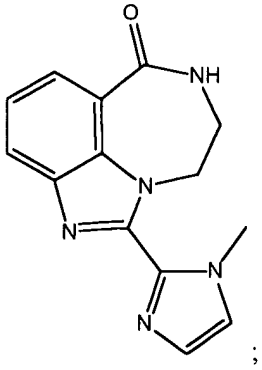
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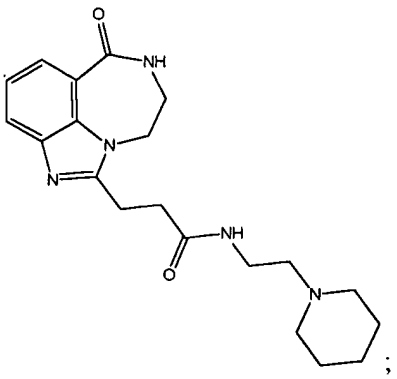
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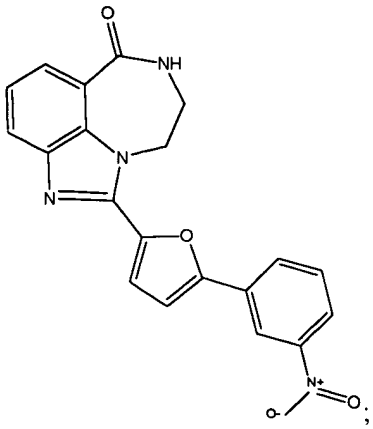
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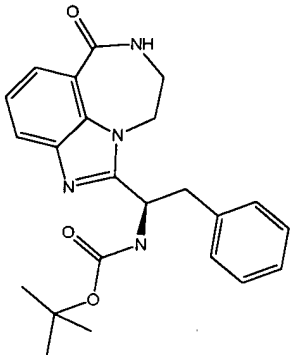
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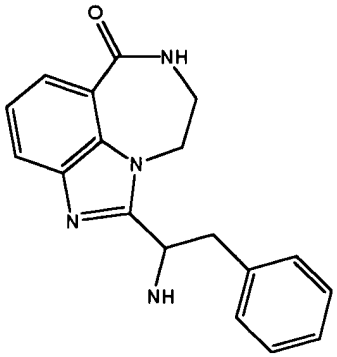
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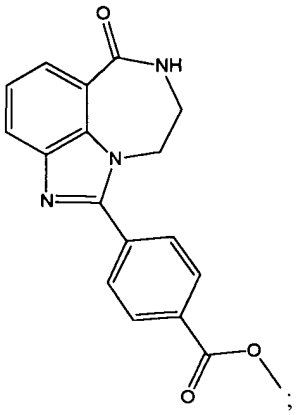
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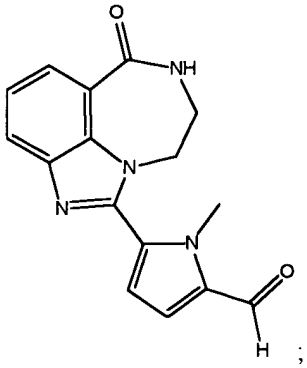
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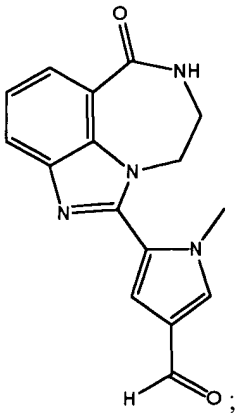
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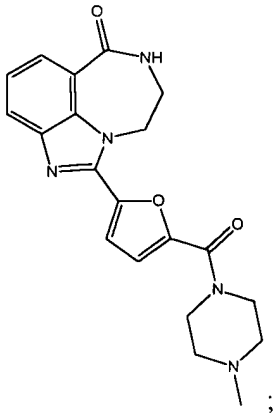
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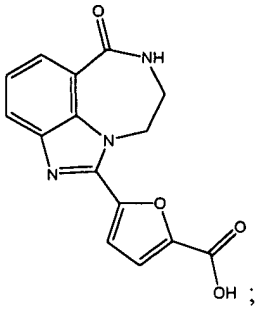
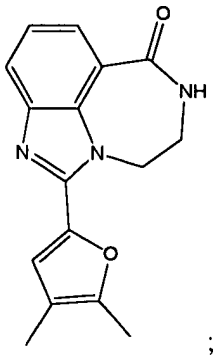
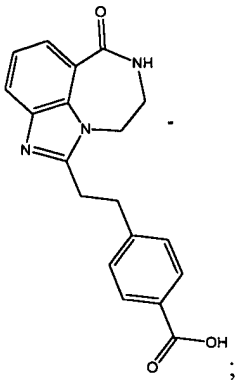
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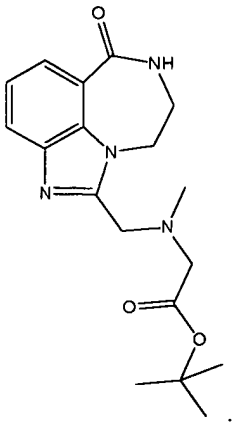
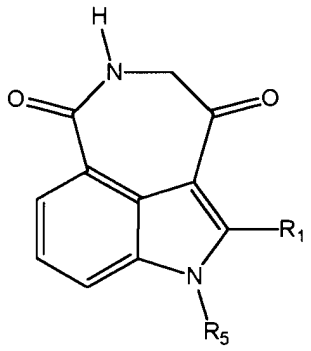


11. A compound of the formula:



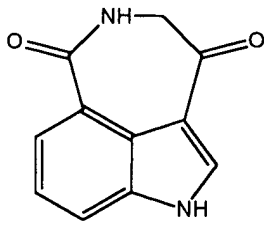
I-3e

where

R_1 and/or R_5 are, independently, halogen, H, OH, =O or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, $-COR_8$, where R_8 is H, -OH, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl, or $-OR_6$ or $-NR_6R_7$ where R_6 and R_7 are each

independently hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl.

12. A compound of claim 11 selected from the group consisting of:



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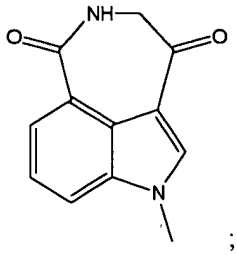

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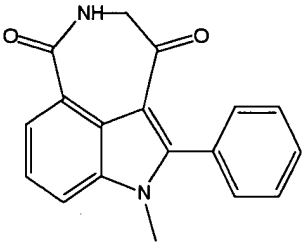

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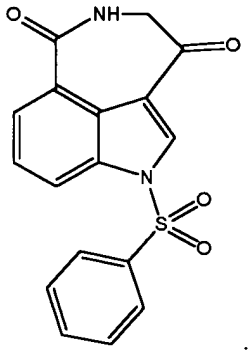
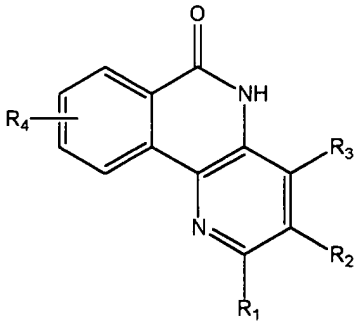


13. A compound of the formula:

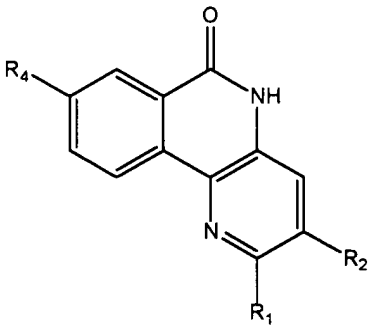


II-5

wherein R_1, R_2, R_3 and R_4 when present, are independently halogen, H, amino, hydroxy, halogen-substituted amino, -O-alkyl, -O-aryl, or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, -COR_8, where R_8 is H, -OH an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl,

heterocycloalkyl, aryl or heteroaryl, or $-OR_6$ or $-NR_6R_7$ where R_6 and R_7 are each independently hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl; and
R_4 is, when present, is independently selected from hydrogen, halogen or alkyl.

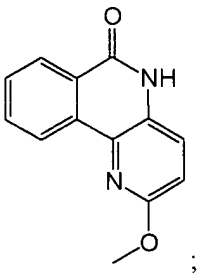
14. A compound of the formula:



II-5

where
R_1 and R_2 are, independently, an optionally substituted alkyl, alkenyl, alkynyl, alkoxy, carboxy, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, halogen, $-COR_8$, where R_8 is H, -OH an optionally substituted alkyl, alkoxy, or $-OR_6$ where R_6 is independently hydrogen or an optionally substituted alkyl; and
R_4 is hydrogen, halogen, or methoxy.

15. The compound of claim 14 selected from the group consisting of: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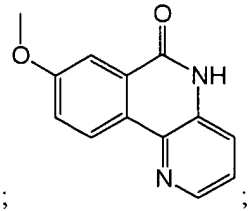
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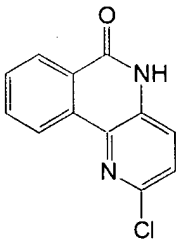
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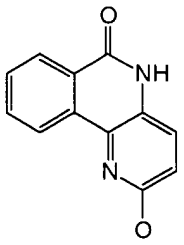
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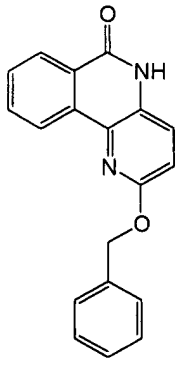
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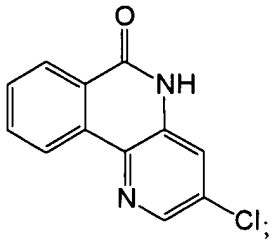
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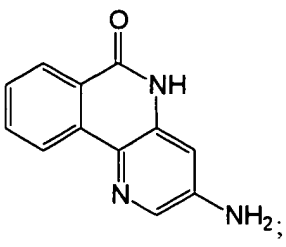
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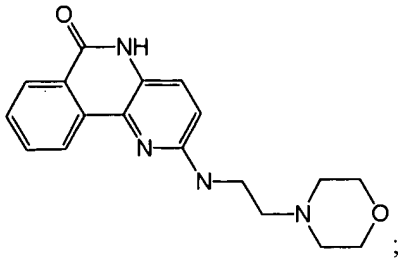
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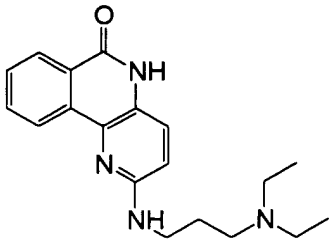
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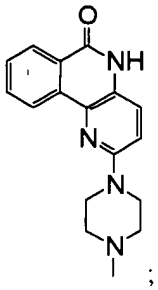
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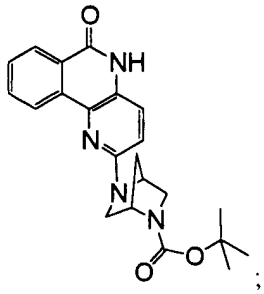
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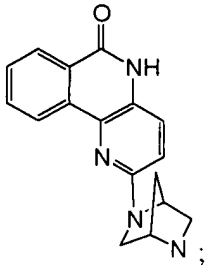
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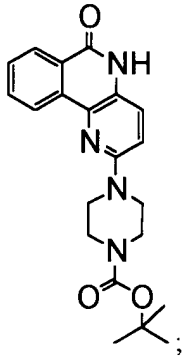
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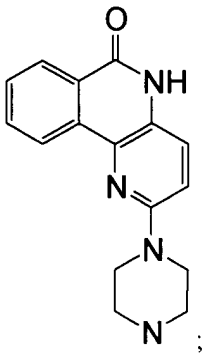
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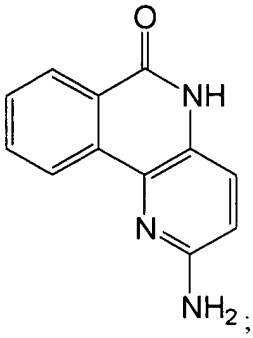
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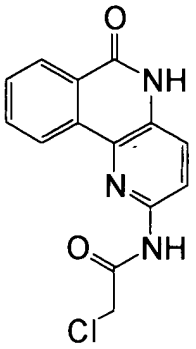
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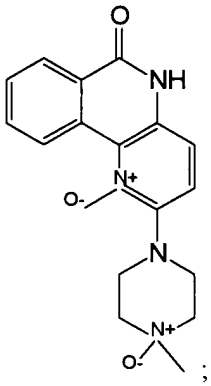
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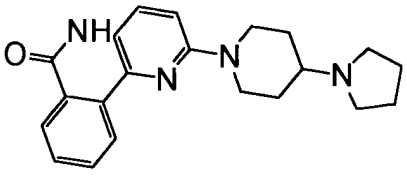
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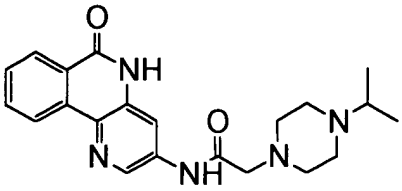
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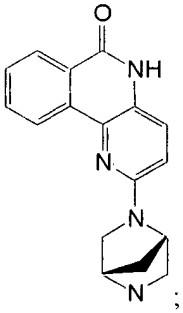
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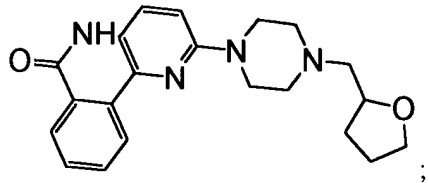

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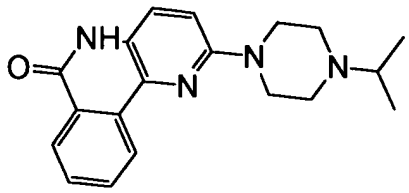

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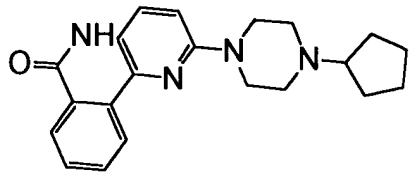
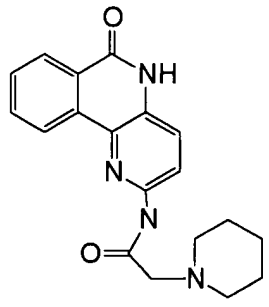
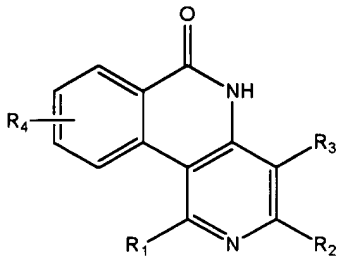




; and

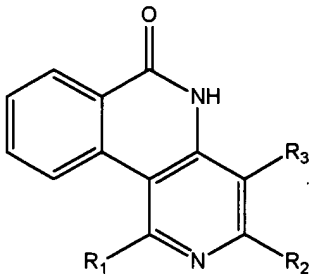
16. A compound of the formula:



II-6

wherein R_1, R_2 and R_3, when present, are, independently, halogen, H, amino, hydroxy, halogen-substituted amino, -O-alkyl, -O-aryl, or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, $-COR_8$, where R_8 is H, -OH, an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl, or $-OR_6$ or $-NR_6R_7$ where R_6 and R_7 are each independently hydrogen or an optionally substituted alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl or heteroaryl; and
R_4 is, when present, is independently selected from hydrogen, halogen or alkyl.

17. A compound of the formula:

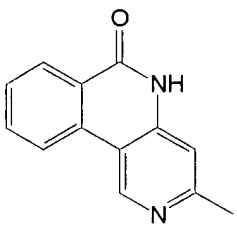


II-6

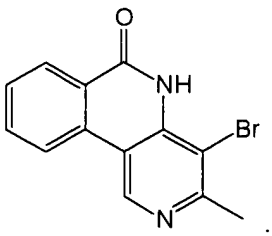
where

R_1, R_2 and R_3 are, when present, independently, halogen, hydrogen, an optionally substituted alkyl, alkenyl, alkynyl, alkoxy, carboxy, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, halogen, -COR_8, where R_8 is H, -OH, an optionally substituted alkyl, alkoxy, or –OR_6 where R_6 is independently hydrogen or an optionally substituted alkyl.

18. A compound of claim 17 selected from the group consisting of:



and



.

19. A method of inhibiting PARP activity in a mammal comprising administering to said mammal, in a pharmaceutically acceptable excipient, a compound of any of claims 1-18.

20. A method of treating diseases or conditions selected from the group consisting of tissue damage resulting from cell damage or death due to necrosis or apoptosis, neuronal mediated tissue damage or diseases, neural tissue damage resulting from ischemia and reperfusion injury, age-related macular degeneration, AIDS and other immune senescence diseases, arthritis, gout, cachexia, cancer, degenerative diseases of skeletal muscle involving replicative senescence, diabetes, immune senescence, muscular dystrophy, osteoarthritis, osteoporosis, neuropathic pain, nervous insult, peripheral nerve injury, renal failure, retinal ischemia, septic shock, and skin aging, diseases or disorders relating to lifespan or proliferative capacity of cells, and diseases or disease conditions induced or exacerbated by cellular senescence, comprising administering a compound of any of claims 1-18.

21. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and at least one compound of any of claims 1-18.

22. A method of inhibiting PARP in a mammal comprising administering a therapeutically effective amount of a composition of any of claims 1-18 to a mammal in need of said inhibition.

23. A method of treating at least one of neural tissue of a mammal damaged as a result of ischemia or reperfusion injury, or neurological disorders or neurodegenerative diseases; treating vascular stroke; treating cardiovascular disorders; treating at least one condition selected from age-related muscular degeneration, AIDS, an immune senescence disease, inflammation, gout, arthritis, atherosclerosis, cachexia, cancer, a degenerative disease of skeletal muscle involving replicative senescence, diabetes, head trauma, immune senescence, inflammation, gout, inflammatory bowel disorders (such as colitis and Crohn's disease), muscular dystrophy, osteoarthritis, osteoporosis, chronic and/or acute pain (such as neuropathic pain), renal failure, retinal ischemia, septic shock (such as endotoxic shock), or skin aging; extending the lifespan and/or proliferative capacity of cells; altering gene expression of senescent cells; radiosensitizing hypoxic tumor cells, or treating a cardiovascular disease in an animal, such as angina pectoris, myocardial infarction, cardiovascular ischemia or cardiovascular tissue damage related to PARP activation said method comprising administering a therapeutic effective amount of a composition of any of claims 1-18 to a mammal in need of said treatment.

24. A method of claim 23, wherein said neurological disorder is selected from the group consisting of peripheral neuropathy caused by physical injury or disease state, such as Guillain-Barre syndrome, traumatic brain injury, physical damage to the spinal cord, stroke associated with brain damage, focal ischemia, global ischemia, reperfusion injury, demyelinating disease, such as multiple sclerosis, and neurological disorder relating to neurodegeneration, such as Alzheimer's Disease, Parkinson's Disease, and amyotrophic lateral sclerosis; said reperfusion injury is a vascular stroke